SEQUENCE LISTING

<110> Pinter, Abraham

<120> HIV-1 gp120 V1/V2 DOMAIN EPITOPES
    CAPABLE OF GENERATING NEUTRALIZING ANTIBODIES

<130> 07763-048001

<140> 09/508,208
<141> 2000-03-08

<150> PCT/US98/18679
<151> 1998-09-08

<150> 60/058,155
<151> 1997-09-08

<160> 30

<170> FastSEQ for Windows Version 4.0

<210> 1
<211> 96
<212> PRT
<213> Human immunodeficiency virus (HIV)

<400> 1
Val Lys Leu Thr Pro Leu Cys Val Thr Leu Asn Cys Ile Asp Leu Arg
1   5   10   15
Asn Ala Thr Asn Ala Thr Ser Asn Ser Asn Thr Thr Asn Thr Thr Ser
            20   25   30
Ser Ser Gly Gly Leu Met Met Glu Gln Gly Glu Ile Lys Asn Cys Ser
        35   40   45
Phe Asn Ile Thr Thr Ser Ile Arg Asp Lys Val Gln Lys Glu Tyr Ala
    50   55   60
Leu Phe Tyr Lys Leu Asp Ile Val Pro Ile Asp Asn Pro Lys Asn Ser
65   70   75   80
Thr Asn Tyr Arg Leu Ile Ser Cys Asn Thr Ser Val Ile Thr Gln Ala
                85   90   95

<210> 2
<211> 34
<212> PRT
<213> Human immunodeficiency virus (HIV)

<400> 2
Gly Glu Ile Lys Asn Cys Ser Phe Asn Ile Thr Thr Ser Ile Arg Asp
1   5   10   15
Lys Val Gln Lys Glu Tyr Ala Leu Phe Tyr Lys Leu Asp Ile Val Pro
            20   25   30
Ile Asp

<210> 3

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<211> 93
<212> PRT
<213> Human immunodeficiency virus (HIV)

<400> 3
Leu Lys Pro Cys Val Lys Leu Thr Pro Leu Cys Val Thr Leu His Cys
 1               5                  10                  15
Thr Asn Leu Lys Asn Ala Thr Asn Thr Lys Ser Ser Asn Trp Lys Glu
            20                  25                  30
Met Asp Arg Gly Glu Ile Lys Asn Cys Ser Phe Lys Val Thr Thr Ser
            35                  40                  45
Ile Arg Asn Lys Met Gln Lys Glu Tyr Ala Leu Phe Tyr Lys Leu Asp
        50                  55                  60
Val Val Pro Ile Asp Asn Asp Asn Thr Ser Tyr Lys Leu Ile Asn Cys
 65                  70                  75                  80
Asn Thr Ser Val Ile Thr Gln Ala Cys Pro Lys Val Ser
                85                  90

<210> 4
<211> 7
<212> PRT
<213> Human immunodeficiency virus (HIV)

<400> 4
Glu Asn Leu Tyr Phe Gln Ser
 1               5

<210> 5
<211> 7
<212> PRT
<213> Human immunodeficiency virus (HIV)

<400> 5
Glu Asn Leu Tyr Phe Gln Gly
 1               5

<210> 6
<211> 28
<212> PRT
<213> Human immunodeficiency virus (HIV)

<400> 6
Ser Phe Asn Ile Thr Thr Ser Ile Arg Asp Lys Val Gln Lys Glu Tyr
 1               5                  10                  15
Ala Leu Phe Tyr Lys Leu Asp Val Val Pro Ile Asp
            20                  25

<210> 7
<211> 23
<212> PRT
<213> Human immunodeficiency virus (HIV)

<400> 7
Tyr Val Ser Asn Arg Gly Asn Arg Met Lys Arg Gln Asn Phe Leu Asn
 1               5                  10                  15
Arg Tyr Ile Ile Ser Val Glu
            20
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<210> 8
<211> 30
<212> PRT
<213> Human immunodeficiency virus (HIV)

<400> 8
Pro Lys Leu Cys Val Lys Leu Thr Pro Leu Cys Val Gly Ala Gly Ser
 1   5   10   15
Cys Asn Thr Ser Val Ile Thr Gln Ala Cys Pro Lys Val Ser
            20   25   30

<210> 9
<211> 15
<212> PRT
<213> Human immunodeficiency virus (HIV)

<400> 9
Ala Ser Val Lys Leu Thr Pro Leu Cys Val Thr Leu Asn Ser Ile
 1   5   10   15

<210> 10
<211> 15
<212> PRT
<213> Human immunodeficiency virus (HIV)

<400> 10
Val Thr Leu Asn Cys Ile Asp Leu Arg Asn Ala Thr Asn Ala Thr
 1   5   10   15

<210> 11
<211> 15
<212> PRT
<213> Human immunodeficiency virus (HIV)

<400> 11
Ala Thr Asn Ala Thr Ser Asn Ser Asn Thr Thr Asn Thr Thr Ser
 1   5   10   15

<210> 12
<211> 15
<212> PRT
<213> Human immunodeficiency virus (HIV)

<400> 12
Thr Asn Thr Thr Ser Ser Ser Gly Gly Leu Met Met Glu Gln Gly
 1   5   10   15

<210> 13
<211> 15
<212> PRT
<213> Human immunodeficiency virus (HIV)

<400> 13
Met Met Glu Gln Gly Glu Ile Lys Asn Cys Ser Phe Asn Ile Thr
 1   5   10   15

<210> 14
<211> 15
<212> PRT
<213> Human immunodeficiency virus (HIV)

<400> 14
Ser Phe Asn Ile Thr Thr Ser Ile Arg Asp Lys Val Gln Lys Glu
1   5   10   15

<210> 15
<211> 15
<212> PRT
<213> Human immunodeficiency virus (HIV)

<400> 15
Ser Ile Arg Asp Lys Val Gln Lys Glu Tyr Ala Leu Phe Tyr Lys
1   5   10   15

<210> 16
<211> 15
<212> PRT
<213> Human immunodeficiency virus (HIV)

<400> 16
Glu Tyr Ala Leu Phe Tyr Lys Leu Asp Ile Val Pro Ile Asp Asn
1   5   10   15

<210> 17
<211> 19
<212> PRT
<213> Human immunodeficiency virus (HIV)

<400> 17
Lys Lys Thr Thr Ser Ile Arg Asp Lys Val Gln Lys Glu Tyr Ala Leu
1   5   10   15
Phe Tyr Lys

<210> 18
<211> 14
<212> PRT
<213> Human immunodeficiency virus (HIV)

<400> 18
Ser Ile Arg Asp Lys Val Gln Lys Glu Tyr Ala Leu Phe Tyr
1   5   10

<210> 19
<211> 8
<212> PRT
<213> Human immunodeficiency virus (HIV)

<400> 19
Ser Thr Ser Ile Arg Gly Lys Val
1   5

<210> 20

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<211> 17
<212> PRT
<213> Human immunodeficiency virus (HIV)

<400> 20
Thr Thr Ser Ile Arg Asp Lys Val Gln Lys Glu Tyr Ala Leu Phe Tyr
1               5                   10                  15
Lys


<210> 21
<211> 16
<212> PRT
<213> Human immunodeficiency virus (HIV)

<400> 21
Thr Thr Ser Ile Arg Asp Lys Val Gln Lys Glu Tyr Ala Leu Phe Tyr
1               5                   10                  15

<210> 22
<211> 14
<212> PRT
<213> Human immunodeficiency virus (HIV)

<400> 22
Thr Thr Ser Ile Arg Asp Lys Val Gln Lys Glu Tyr Ala Leu
1               5                   10

<210> 23
<211> 13
<212> PRT
<213> Human immunodeficiency virus (HIV)

<400> 23
Thr Thr Ser Ile Arg Asp Lys Val Gln Lys Glu Tyr Ala
1               5                   10

<210> 24
<211> 12
<212> PRT
<213> Human immunodeficiency virus (HIV)

<400> 24
Thr Thr Ser Ile Arg Asp Lys Val Gln Lys Glu Tyr
1               5                   10

<210> 25
<211> 15
<212> PRT
<213> Human immunodeficiency virus (HIV)

<400> 25
Ser Ile Arg Asp Lys Val Gln Lys Glu Tyr Ala Leu Phe Tyr Lys
1               5                   10                  15

<210> 26
<211> 13
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<212> PRT
<213> Human immunodeficiency virus (HIV)

<400> 26
Arg Asp Lys Val Gln Lys Glu Tyr Ala Leu Phe Tyr Lys
 1               5                  10


<210> 27
<211> 12
<212> PRT
<213> Human immunodeficiency virus (HIV)

<400> 27
Asp Lys Val Gln Lys Glu Tyr Ala Leu Phe Tyr Lys
 1               5                  10


<210> 28
<211> 365
<212> PRT
<213> Human immunodeficiency virus (HIV)

<400> 28
Ala Ala Pro Gly Ser Ser Pro His His His His His Val Tyr Asn
 1               5                  10                  15
Ile Thr Trp Glu Val Thr Asn Gly Asp Arg Glu Thr Val Trp Ala Ile
           20                  25                  30
Ser Gly Asn His Pro Leu Trp Thr Trp Trp Pro Val Leu Thr Pro Asp
           35                  40                  45
Leu Cys Met Leu Ala Leu Ser Gly Pro Pro His Trp Gly Leu Glu Tyr
           50                  55                  60
Gln Ala Pro Tyr Ser Ser Pro Pro Gly Pro Pro Cys Cys Ser Gly Ser
 65                  70                  75                  80
Ser Gly Ser Ser Ala Gly Cys Ser Arg Asp Cys Asp Glu Pro Leu Thr
               85                  90                  95
Ser Leu Thr Pro Arg Cys Asn Thr Ala Trp Asn Arg Leu Lys Leu Asp
           100                 105                 110
Gln Val Thr His Lys Ser Ser Glu Gly Phe Tyr Val Cys Pro Gly Ser
           115                 120                 125
His Arg Pro Arg Glu Ala Lys Ser Cys Gly Gly Pro Asp Ser Phe Tyr
           130                 135                 140
Cys Ala Ser Trp Gly Cys Glu Thr Thr Gly Arg Val Tyr Trp Lys Pro
145                 150                 155                 160
Ser Ser Ser Trp Asp Tyr Ile Thr Val Asp Asn Asn Leu Thr Thr Ser
               165                 170                 175
Gln Ala Val Gln Val Cys Lys Asp Asn Lys Trp Cys Asn Pro Leu Ala
           180                 185                 190
Ile Gln Phe Thr Asn Ala Gly Lys Gln Val Thr Ser Trp Thr Thr Gly
           195                 200                 205
His Tyr Trp Gly Leu Arg Leu Tyr Val Ser Gly Arg Asp Pro Gly Leu
           210                 215                 220
Thr Phe Gly Ile Arg Leu Arg Tyr Gln Asn Leu Gly Pro Arg Val Pro
225                 230                 235                 240
Ile Gly Pro Asn Pro Val Leu Ala Asp Gln Leu Ser Leu Pro Arg Pro
               245                 250                 255
Asn Pro Leu Pro Lys Pro Ala Lys Ser Pro Pro Ala Ser Val Lys Leu
               260                 265                 270
Thr Pro Leu Cys Val Thr Leu Asn Cys Ile Asp Leu Arg Asn Ala Thr
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        275                 280                 285
Asn Ala Thr Ser Asn Ser Asn Thr Thr Asn Thr Thr Ser Ser Ser Gly
    290                 295                 300
Gly Leu Met Met Glu Gln Gly Glu Ile Lys Asn Cys Ser Phe Asn Ile
305                 310                 315                 320
Thr Thr Ser Ile Arg Asp Lys Val Gln Lys Glu Tyr Ala Leu Phe Tyr
                325                 330                 335
Lys Leu Asp Ile Val Pro Ile Asp Asn Pro Lys Asn Ser Thr Asn Tyr
            340                 345                 350
Arg Leu Ile Ser Cys Asn Thr Ser Val Ile Thr Gln Ala
        355                 360                 365
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<210> 29
<211> 9
<212> PRT
<213> Human immunodeficiency virus (HIV)

<400> 29
Pro Cys Val Lys Leu Thr Pro Cys Val
 1               5


<210> 30
<211> 12
<212> PRT
<213> Human immunodeficiency virus (HIV)

<400> 30
Ser Cys Asn Thr Ser Val Ile Thr Gln Ala Cys Pro
 1               5                  10
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